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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,974	02/02/2004	Dag Willen	NKTR-34155US1	8989
116 7590 10/31/2007 PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108			EXAMINER HESS, MICHAEL THOMAS	
			ART UNIT 3729	PAPER NUMBER
			MAIL DATE 10/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/769,974

Applicant(s)

WILLEN, DAG

Examiner

Michael T. Hess

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/600,554.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. The indicated allowability of the subject matter of claim 7 and 9 are withdrawn in view of the newly discovered reference to U.S. Patent No. 5,677,974 to Elms et al. and the Obviousness-type Double Patenting rejection in view of U.S. Patent No. 6,684,486 to Willen. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4, 5 and 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claim 4, the limitation of arranging "N-phase groups or each of the assemblies of N-phase groups...so that the phase conductors form N flat phases" creates ambiguity as to what the term "flat" is relative to. For example, a phase conductor will inherently be raised from what ever surface it is originally applied to, thus it cannot be considered flat in relation to that surface. Therefore, Applicant has failed to particularly point out and distinctly claim the subject matter which is regarded as the claimed invention.

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4. Regarding claim 5, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

5. The term "co-operates" in claim 12 is a relative term which renders the claim indefinite. The term "co-operates" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear how or what is considered co-operation between the individual phases, which creates a vague limitation. Thus, Applicant has failed to particularly point out and distinctly claim the subject matter which he regards as the invention.

NOTE: IN VIEW OF THE 35 U.S.C. § 112, ¶ 2 REJECTION OF CLAIMS 4, 5 AND 12 ABOVE, CLAIMS 4, 5 AND 12 HAVE BEEN REJECTED ON PRIOR ART AS BEST UNDERSTOOD BY EXAMINER.

Claim Rejections - 35 USC § 102/103

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 3/1, 3/2, 4/1, 4/2, 5/1, 5/2, 6-8, 12 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,677,974 to Elms et al. (Elms).

In Reference to Claims 1- 8, 12 and 14

Elms teaches:

a method for constructing a cable comprising N phases, the method comprising the steps of:

providing each phase (Col. 3, Lines 13-16, each group of conductors 14, Fig 1 – conductors 14 are concentrically arranged, can transmit three-phase alternating current (AC); each phase will inherently have insulation between it and other phases or else the cable would short circuit) in the cable (Ref. # 10) in the form of a number of phase conductors (Ref. # 14, see Fig. 1, some of the conductors 14 are arranged in a flat line within the insulation 16),

classifying (this can be a mental step) the phase conductors (Ref. # 14) in N-phase groups (Col. 3, Lines 13-16, each group can carry three-phase AC), each N-phase group (a group of conductors 14 surrounded by insulation 16 is considered one N-phase group) comprising a phase conductor (Ref. # 14) from each of the N different phases (Col. 3, Lines 13-16, three different phases are carried in each group of conductors 14), where N is greater than one (Col. 3, Lines 13-16, N=3, discussing three-phase groups) and where the number of N-phase groups (group of conductors 14)

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is larger than or equal to two (Fig. 1, there are at least nine different groups of conductors 14, arranged in coaxial layers wherein there is one layer),

arranging insulation means (Ref. # 16) in the cable (Ref. # 10) around each phase conductor or between assemblies of phase conductors (Fig. 1, insulation 16 surrounds groups of conductors 14), and providing that said N-phase groups are electrically insulated from each other (Fig. 1, each group is clearly insulated from the other,

providing the N-phase groups (groups of conductors 14) or assemblies of N-phase groups (Fig. 1, the nine N-phase groups in one assembly) with a common electrical screen (Ref. # 22, Col. 2, Lines 7-8, first layer is steel), and

wherein the electrical screen is kept at 0 potential (it is known in the art to keep the screen at 0 potential because the energy travels through the conducting strands),

wherein the individual phases (three-phase conductors) in each N-phase group (group of conductors 14) or assembly of N-phase groups have such permittivity that the individual phases co-operate magnetically (it is inherent that any set of conductors next to each other will interact magnetically with each other).

To the extent that Applicant disagrees Elms discloses:

using the method to make a superconducting cable.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the method of making a cable of Elms to make a superconducting cable because Elms' method is identical to that of Applicant's claims and thus fully capable of producing a superconducting cable as a result of using the

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same constructing steps and materials as recited in claims 1-8, 12 and 14.

Furthermore, nothing in the body of the claims 1-8, 12 and 14 precludes the application of Elms' cable constructing method in a superconducting cable producing process because it is the same process as Applicant's claimed process.

Claim Rejections - 35 USC § 103

4. Claims 10, 11, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elms.

In Reference to Claims 10 and 15

Elms teaches:

a method according to Claim 1 (see 35 U.S.C. § 103(a) rejection of Claim 1 above).

However, elms fails to teach:

wherein the number of N-phases is larger than 10 or 100.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have made a cable 10 or even 100 phases as it is well known that the more conductors there the greater the current carrying capacity is of the cable.

In Reference to Claim 11

Elms teaches:

a method according to claim 1 (see 35 U.S.C. § 103(a) rejection of Claim 1 above).

However, Elms fails to teach:

wherein the electrical screen is kept at 0 potential and consists fully or partially of superconducting , metallic and semiconducting materials or of a combination of these materials with non-conducting materials and composites and is positioned close to the electrically insulating material.

In Reference to Claim 13

Elms teaches:

a method according to Claim 1 (see 35 U.S.C. § 103(a) of Claim 1 above).

Elms fails to teach:

wherein at least one of the phases is constituted by a neutral conductor.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used a neutral conductor as one of the phases in the method of Elms because it is well known in the art that if there is a three-phase cable it will include a neutral conductor.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated

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by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-15 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,684,486 ('486). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

- The limitation of "where the number of N-phase groups is larger than or equal to two" would have been obvious in view of the '486 patent as Claims 1 implies that there are already two or more N-phase groups by saying "each N-phase group". Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to have used two or more groups in connection with the invention claimed in the '486 patent.

- Further, the limitation of "providing that said N-phase groups are electrically insulated from each other" is inherent in the method of the '486 patent because it is necessary for each conductor to be electrically insulated from each other, or else the cable would short circuit, which necessarily implies the each N-phase group is electrically insulated from each other.

Response to Arguments

7. Applicant's arguments, see REMARKS/ARGUMENTS, filed August 23, 2007, with respect to the Objections to the Specification and 35 U.S.C. § 112 rejection(s) of claim(s) 3 and 5 have been fully considered and are persuasive. Therefore, the Objections and Rejections have been withdrawn.

8. Applicant's arguments with respect to claims 1-6, 8 and 10-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

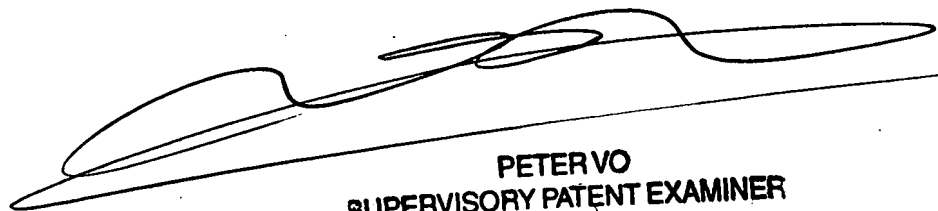
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael T. Hess whose telephone number is 571-270-1994. The examiner can normally be reached on 6:30 AM - 5:00 PM, Monday - Thursday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MTH *MTH* 10.29.07



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